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GAINSHARING

DOD Efforts Highlight an Effective Tool for Enhancing Federal Productivity

ORIGINAL

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The Honorable Bill Chappell, Jr.
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

This briefing report is in response to the Subcommittee's June 4, 1985, request that we review the status of gainsharing efforts in the Department of Defense (DOD). As a result of meeting with your staff, we agreed to report on (1) past and ongoing gainsharing efforts in DOD; (2) reported cost savings, productivity improvements, and other benefits resulting from these efforts; (3) barriers to and elements necessary for the success of such efforts; and (4) gainsharing trends in private industry, including their applicability to the federal sector.

OBJECTIVES, SCOPE, AND METHODOLOGY

To provide the information requested, we obtained data from DOD officials in Washington, D.C., and from DOD installations having experience with gainsharing programs. We visited 16 DOD installations to interview gainsharing program managers and to collect available documentation on the programs. Thirty-four program managers at eight installations answered questionnaires detailing program operations and results, although we did not verify the accuracy of the reported data. The data from the questionnaires are not projectable to the universe of gainsharing efforts since we did not survey a representative sample; however, the data does support certain of our findings about the elements necessary for gainsharing programs to succeed.

In addition, we analyzed private sector studies on gainsharing efforts to (1) use as criteria in evaluating DOD's gainsharing efforts, (2) identify elements necessary for success, and (3) ascertain emerging trends in gainsharing. A detailed discussion of our objectives, scope, and methodology is found in appendix 1.

Our audit work, which took place from October 1985 through February 1986, was done in accordance with generally accepted government auditing standards.

As requested by your office, we did not obtain written agency comments, although we did discuss the report's contents with appropriate agency officials.

A summary of our observations on private sector and DOD gainsharing efforts follows.

DEFINITION

We define gainsharing programs as incentive systems that measure gains in employee productivity and share the savings generated between employees and the organization. The primary objective of gainsharing programs is to create conditions under which workers and management benefit by moving on parallel paths towards the common goal of improved productivity. Gainsharing programs can be based solely on financial incentives, or they can combine financial bonus systems with employee participation systems that elicit and act upon suggestions from employees on how to do the work more efficiently and effectively.

GAINSHARING TRENDS IN PRIVATE INDUSTRY

Our analysis of studies on private sector gainsharing efforts and our prior work in this area indicates three major trends:

--Gainsharing programs based on organizationwide productivity measurements are replacing programs based on individual or small group productivity measurements.

--Organizational-based gainsharing programs are achieving high success rates.

--Private sector firms are increasingly incorporating employee participation systems into their gainsharing programs.

STATUS OF GAINSHARING EFFORTS IN DOD

We collected data on 18 gainsharing efforts implemented in DOD as of February 1986: 5 ongoing and 13 terminated. We also gathered data on three DOD gainsharing efforts currently being developed. Although the efforts varied considerably as regards numbers and types of employees involved and lengths of time in operation, all the programs implemented as of the completion of our audit work in February 1986 (1) have been based on individual or small group measurements and (2) have not included employee participation systems.

RESULTS

All the gainsharing efforts in DOD report cost savings (ranging from $7,000 to over $1 million). Some of the installations also report indirect benefits, including decreased sick leave usage and reductions in work backlogs and overtime costs. In addition, some installations report that the gainsharing efforts, by focusing attention on organizational barriers to productivity improvements, help provide mechanisms and incentives for solving these problems.

BARRIERS

The major barriers to gainsharing programs cited by Office of the Secretary of Defense officials are the lack of specific legislation authorizing such programs and the absence of Office of Personnel Management (OPM) policies and guidance. Furthermore, existing policies prohibiting the use of administrative time off and merchandise as incentives limit flexibility in designing and implementing gainsharing programs.

Currently, there is no governmentwide published guidance for federal agencies interested in establishing gainsharing programs. In this connection, our December 31, 1980, report on productivity-based reward systems (gainsharing programs) cited the need for OPM to develop policy guidance for these programs.[1]

We agree with DOD officials that specific legislation authorizing gainsharing programs could eliminate the concerns they expressed. Another alternative would be for OPM to expand the discussion in its regulations or in the Federal Personnel Manual (FPM) governing employee incentive programs to specifically address gainsharing. The proposed guidance could detail parameters for designing, implementing, and operating gainsharing programs, as well as OPM's views on the use of administrative time off in lieu of money. With regard to the use of merchandise as a noncash award, OPM would have to change its instructions, (FPM 451, subchapter 7-5,) in order to remove the existing prohibition.

ELEMENTS NECESSARY FOR SUCCESS

We identified four principal elements critical to the success of gainsharing programs:

--Continuous and visible top management support.

--Employee participation systems to elicit and act upon work improvement ideas.

--Definable and accurate measures of performance.

--Adequate workloads to absorb productivity increases.

Other elements that contribute to success include: (1) information sharing between participating parties, (2) union participation, (3) continuous feedback to employees on their performance, and (4) the availability of parts and materials to accomplish the work.

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[1]Ways to Improve Federal Management and Use of Productivity Based Reward Systems (GAO/FPCD-81-24, Dec. 31, 1980).

CONCLUSIONS

DOD's gainsharing efforts to date demonstrate that individual/small group programs, when properly designed, implemented, and maintained, can generate cost savings and productivity improvements. What still needs to be determined is whether large group/organizational, participative gainsharing programs, which have proven successful in private industry and offer the most potential for substantial and lasting productivity improvements, have the same applicability to the federal environment.

These issues are discussed in more detail in the enclosed appendixes. As agreed with your office, we are sending copies of this report to the Secretary of Defense, the Director of the OPM, and to other interested parties. If you have any questions, please call me on 275-5099.

Sincerely yours,

Brian L. Usilaner
Associate Director

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ABBREVIATIONS

AMC	Army Material Command
DOD	Department of Defense
FPM	Federal Personnel Manual
GAO	General Accounting Office
NPRDC	Navy Personnel Research and Development Center
OPM	Office of Personnel Management

INTRODUCTION

In light of the present environment of retrenchment in the federal government, the potential implications of the Balanced Budget and Emergency Deficit Control Act of 1985, and the recently initiated President's Productivity Improvement Program, agencies need to constantly search for ways to increase productivity and decrease costs.

WORK, MOTIVATION, AND PRODUCTIVITY

Studies and articles by consultants in the field point toward the importance of incentives to improve motivation and increase productivity. Recent studies also indicate that many workers are not performing to their potential. A report prepared for the Public Agenda Foundation in 1983 noted that the productive capabilities of the United States could be substantially improved if we could tap what the report calls workers' discretionary efforts.[1] The report defines discretionary efforts as the differences between levels of work that have to be done to keep jobs and the maximum levels that are possible.

Based on a random sample of 845 companies, the study reported that of the workers in those companies:

--23 percent were not working to their potential,

--44 percent did not put much more effort into their jobs over and above what was required to keep the jobs,

--75 percent said they could be significantly more effective in their jobs,

--73 percent said the quality and amount of effort they put into their jobs had very little to do with how much they were paid, and

--73 percent believed the absence of a clear connection between pay and performance was one of the main reasons why their work efforts had deteriorated.

In order to tap workers' discretionary efforts, some private sector companies have implemented gainsharing programs and, as a result, report improved productivity and decreased

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[1]Daniel Yankelovich and John Immerwahr, Putting the Work Ethic to Work: A Public Agenda Report on Restoring America's Competitive Vitality, Public Agenda Foundation, 1983.

costs. Various DOD facilities in recent years have also instituted gainsharing efforts as tools to increase employee productivity.

Gainsharing programs are financial incentive structures that measure gains in employee productivity and share the savings generated between employees and the organization. The prime objective of gainsharing programs is to create conditions under which workers and management benefit by moving on parallel paths toward the common goal of improved productivity.

These programs closely tie individual bonuses to corresponding increases in individual, group, or organizational productivity. While many gainsharing programs are based solely on monetary reward systems, others combine financial bonuses with employee participation systems. Called participative gainsharing, these programs elicit and act upon suggestions from employees on how to do the work more efficiently and effectively and reward them through bonuses for their increased productivity.

Gainsharing programs that are based solely on financial incentives depend on increased physical performance to achieve productivity improvements. Participative gainsharing programs combine physical improvement with systems for solving work-related problems, thus increasing productivity through better use of both physical and mental capabilities.

Organizations with years of experience in gainsharing find it is more than just an incentive plan; it is a management philosophy that encourages employees to become involved in improving productivity. Gainsharing creates work environments in which employees see improved productivity as beneficial to them, therefore enabling worker productivity goals and management productivity goals to become congruent. Employee interests expand to the entire organization when all employees are rewarded as a group for their gains. When workers are concerned with productivity they become (1) interested in how operations are performed throughout the organization and (2) attentive to eliminating impediments to productivity.

For the purpose of this report, we have classified gainsharing programs according to the types of standards used to measure productivity, regardless of the numbers of employees involved. Individual/small group gainsharing efforts use productivity standards, usually engineered standards (an

engineered standard defines the time it should take for an average qualified person to accomplish the defined work), to measure performance on an individual or small group basis. Large group/organizational efforts use broader productivity measurements, such as unit cost, total units produced, or total costs.

OBJECTIVES, SCOPE, AND METHODOLOGY

By letter dated June 4, 1985, the Chairman, Subcommittee on Defense, House Committee on Appropriations, requested we review the status of gainsharing efforts in DOD. As a result of meeting with subcommittee staff, we agreed to report on (1) past and ongoing gainsharing efforts in DOD; (2) reported cost savings, productivity improvements, and other benefits resulting from these efforts; (3) barriers to and elements necessary for the success of such efforts; and (4) gainsharing trends in private industry, including their applicability to the federal sector.

Our review, conducted from October 1985 to February 1986, included work at DOD headquarters in Washington, D.C., and at various DOD installations having experience with gainsharing. We visited 16 DOD installations to interview gainsharing program managers and to collect available documentation on the programs. Thirty-four program officials at the eight installations answered questionnaires detailing program operations and results, although we did not verify the accuracy of the reported data. The data from the questionnaires are not projectable to the universe of gainsharing efforts since we did not survey a representative sample; however, the data does support certain of our findings about the elements necessary for gainsharing programs to succeed.

We analyzed studies on private sector gainsharing efforts to ascertain emerging trends in gainsharing. We used these analyses as criteria in evaluating DOD's gainsharing efforts and for identifying elements necessary for success and suggesting possible future directions for DOD's gainsharing efforts.

As requested by the Chairman's office, we did not obtain written agency comments, although we did discuss the report's contents with appropriate agency officials. Our review was done in accordance with generally accepted government auditing standards.

GAINSHARING TRENDS IN PRIVATE INDUSTRY

Studies on private sector gainsharing programs and our prior work in this area point to three trends:

--Large group/organizational gainsharing programs based on organizationwide productivity measurements are replacing programs based on individual/small group productivity measurements.

--Organizational gainsharing programs are achieving high success rates in improving productivity and decreasing costs.

--Private sector firms are increasingly using employee participation systems in their gainsharing programs.

Studies on gainsharing, summarized below, also indicate the reasons why such programs achieve substantial improvements in productivity, and they describe the elements that facilitate implementation of gainsharing programs.

PRIOR GAO REPORT ON GAINSHARING

In March 1981, we reported that gainsharing programs contributed to significant productivity improvements in private industry.[2] We reported that productivity savings resulting from gainsharing programs averaged almost 17 percent for 24 firms providing financial data: firms with gainsharing programs in operation over 5 years averaged almost 29-percent savings in work force costs, while firms with programs in operation less that 5 years averaged savings of about 8.5 percent. The report further stated that 80 percent of the 38 firms surveyed reported improved labor-management relations as a result of gainsharing, and over 70 percent of the 38 firms included employee participation systems as part of their programs.

The report also noted the trend away from individual/small group gainsharing programs to large group/organizational efforts. In discussing the declining use of individual/small group programs we reported that:

--Accurate maintenance of standards for such programs is costly.

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[2]Productivity Sharing Programs: Can They Contribute to Productivity Improvement? (GAO/AFMD-81-22, March 3, 1981).

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--Unions frequently oppose such programs because of their potential for pitting employees against one another in competition for bonuses.

--The programs can create conflicts between workers in the gainsharing program and workers not included in the program.

--Workers often resist new equipment or methods because of possible impacts on earnings.

--Peer pressure or fear of standards being upgraded could cause employees to restrict output.

OTHER PRIVATE SECTOR GAINSHARING STUDIES

Our analyses of five recent studies on private sector gainsharing efforts show the trend towards large group/organizational programs continues. Also, private firms are increasingly incorporating employee participation systems in the programs to provide mechanisms to take advantage of employees' suggestions for doing the work more efficiently and effectively. (App. V describes two private sector, large group/organizational gainsharing programs.)

A 1982 study by the New York Stock Exchange reported that large group/organizational gainsharing programs were one of the six fastest growing human resource activities in corporations with 500 or more employees.[3] The study also reported that (1) 15 percent of U.S. companies with 500 or more employees had gainsharing plans and (2) of these, at least 63 percent reported that employees participated in decisionmaking.

A 1983 study of 33 documented organizational gainsharing programs reported that over 80 percent had measurable improvements in productivity, cost savings, and quality.[4] In discussing trends the study noted that (1) more organizational gainsharing programs had been implemented in the past 5 years than in the prior 50 years, and (2) more companies were including employee participation systems as part of their gainsharing programs. Productivity in some of the companies studied increased 20 to 30 percent or more; 89 percent of the companies had employee participation systems.

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[3]People and Productivity: A Challenge to Corporate America, New York Stock Exchange, November 1982.

[4]R.J. Bullock, "Gainsharing: A Successful Track Record," Human Resource Management, 1983.

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Mitchell Fein, an industrial engineer who developed Improshare (large group-based gainsharing plan which measures productivity through quantity of finished goods output) reported in 1983 that 72 companies with Improshare programs increased productivity an average of 22 percent.[5] The majority of the programs had employee participation systems, and those that did out performed those that did not.

A 1985 study of gainsharing and its future directions by Edward Lawler reported the popularity of large group/ organizational, participative programs had increased tremendously in the last 10 years.[6] The study reported that benefits resulting from such programs included:

(1) A focus on cost savings, not just quantity of production.

(2) Attitudinal changes among workers causing them to demand more efficient management and better planning.

(3) Workers trying to reduce overtime by working smarter, not just harder and faster.

(4) Enhanced coordination, teamwork, and knowledge-sharing at lower levels.

(5) Recognition of social needs through participation and mutually reinforcing group behavior.

(6) Greater acceptance of changes due to technology, market, and new methods, since higher efficiency leads to bonuses.

(7) Workers producing ideas as well as effort.

(8) More flexible administration of union-management relationships.

(9) Unions strengthened because they were responsible for better work situations and higher pay.

CONCLUSION

In their attempts to become more competitive, many private sector firms have implemented organizational based, participative gainsharing programs. These programs generally involve financial

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[5]Mitchell Fein, "Experiences in Managing with Gainsharing," Industrial Management, May/June 1983.

[6]Edward Lawler, Gainsharing Research: Findings and Future Directions, University of Southern California, 1985.

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bonus systems based on organizationwide productivity measurements and include employee participation systems to elicit and act upon suggestions on how to do the work more effectively and efficiently. When properly designed and operated, these types of gainsharing programs can substantially increase productivity and decrease costs.

GAINSHARING EFFORTS IN THE DEPARTMENT OF DEFENSE

DOD organizations began experimenting with gainsharing in the late 1970s. Most of the initial work was sponsored by the Navy Material Command and the Navy Personnel Research and Development Center (NPRDC). In the early 1980s the Army Material Command (AMC) sponsored gainsharing tests lasting 18 to 24 months at various installations around the country. In addition, several DOD installations have initiated gainsharing programs on their own since 1977.

The 18 implemented or terminated gainsharing efforts that we collected data on in DOD vary considerably as regards (1) number of employees included in bonus sharing (from 17 to 1,000); (2) length of time in operation (from 12 months to 54 months); and (3) types of employees involved (data transcribers, mechanics, purchasers, distributors, and maintenance workers). All the programs have been based on individual or small group measurement standards, and none of the efforts have included employee participation systems.

STATUS OF DOD'S GAINSHARING PROGRAMS

As shown in table III.1, of the 21 DOD gainsharing programs on which we collected data, 5 were ongoing as of February 1986, 13 had been terminated, and 3 were in the proposal stage.

Ongoing programs

Table III.1 shows that for the five ongoing gainsharing programs in DOD, two are individual based and three are small group based. While one recently implemented program has not yet reported results (Defense Logistics Distribution Center, Tracy, CA), the other four programs report success at improving productivity and decreasing costs.

Terminated programs

Thirteen of DOD's gainsharing programs have been terminated: 12 had finite operating periods because they were tests and 1 terminated due to management concerns about the program.

The Army's seven terminated efforts were tests aimed at determining gainsharing's potential for improving productivity and decreasing costs. AMC concluded that the majority of the tests were successful in improving productivity as well as providing indirect benefits, including decreases in sick leave usage, personnel turnover, and absenteeism.

TABLE III.1:
DOD GAINSHARING EFFORTS ON WHICH DATA WERE GATHERED

DOD GAINSHARING EFFORTS	LOCATION	TYPE OF WORK	TYPE OF PROGRAM	DATES OF OPERATION	NUMBER OF PARTICIPANTS (approx.)	CLAIMED GROSS SAVINGS (date as of)
ONGOING						
Navy Public Works Center	San Diego, CA	Auto overhaul	Individual	Aug. 1981-ongoing	80	$346,000(Jan. 1985)
Army Missile Command (Redstone Arsenal)	Huntsville, AL	Data transcription	Small group	Mar. 1982-ongoing	34	$403,000(Dec. 1985)
Sacramento Air Logistics Center	Sacramento, CA	Data transcription	Individual	Sept. 1982-ongoing	38	$252,000(Dec. 1985)
Newark Air Force Station	Newark, OH	Maintenance	Small group	Oct. 1985-ongoing	90	$209,000(Oct.-Nov.)
Defense Logistics Distribution Center	Tracy, CA	Warehous.	Small group	Oct. 1985-ongoing	236	not available
TERMINATED						
Mare Island Naval Shipyard	Vallejo, CA	Machine shop	Small group	Sept. 1983-Dec. 1985	22	$7,000
Naval Air Rework Facility	Alameda, CA	Aircraft overhaul	Individual	June 1982-Feb. 1983	85	$70,000
Long Beach Naval Shipyard	Long Beach, CA	Data transcription	Individual	Jan. 1977-Dec. 1977	17	$43,000
Pearl Harbor Naval Shipyard	Pearl Harbor, HI	Machine shop	Small Group	June 1983-Dec. 1985	475	$1,000,000
Pearl Harbor Naval Shipyard	Pearl Harbor, HI	Procurement	Individual	Dec. 1979-Dec. 1982	22	$100,000
Philadelphia Naval Shipyard	Philadelphia, PA	Machine shop	Small group	July 1982-Sept. 1984	1000	$500,000
Sacramento Army Depot	Sacramento, CA	Maintenance/procurement	Small group	July 1982-Mar. 1984	100	$371,000
Armament Research and Development Center	Dover, NJ	Voucher examination	Small group	Dec. 1982-Dec. 1983	17	$23,000
Tobyhanna Army Depot	Tobyhanna, PA	Supply distribution	Small group	June 1982-Mar. 1984	22	$109,000
New Cumberland Army Depot	New Cumberland, PA	Supply distribution	Small group	Oct. 1982-Mar. 1984	60	$120,000
Anniston Army Depot	Anniston, AL	Tank overhaul	Small group	July 1982-Sept. 1983	450	$752,000
Red River Army Depot	Texarcana, TX	Ammunition renovation	Small group	Oct. 1982-Mar. 1984	100	$137,000
Sharpe Army Depot	Lathrop, CA	Supply distribution	Small group	Oct. 1982-Mar. 1984	83	$84,000
PROPOSED						
McClellan Air Force Base	Sacramento, CA	Supply distribution	Large group		2000	
Mare Island Naval Shipyard	Vallejo, CA	Ship/submarine overhaul	Organizational		10000	
Navy Supply Center	San Diego, CA	Procurement	Individual		30	

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Four of the six terminated Navy gainsharing efforts were tests conducted by NPRDC. These tests were designed to assess the feasibility of gainsharing programs in the Navy and to operate for finite periods of time. NPRDC found improvements in the areas of performance efficiency, accuracy of labor accounting, and adjustment of staffing levels to changing work load situations, cumulatively resulting in cost savings for the organizations. NPRDC recommended that Navy managers consider using gainsharing systems to increase productivity and decrease costs.

The 3-year gainsharing program at the Philadelphia Naval Shipyard terminated because (1) the program's designer retired, and (2) management was not prepared to support a program that paid bonuses to some workers on ship overhauls for which total costs were not being reduced.

The other terminated gainsharing program was at Mare Island Naval Shipyard. It was a small group effort in a machine shop and included 22 employees. The test was discontinued because of problems with administrative workloads and the Shipyard's plans to implement an organizational based gainsharing program for its 10,000 civilian employees.

Proposed programs

We also gathered data on three proposed gainsharing efforts in DOD: the Navy Supply Center in San Diego, McClellan Air Force Base, and Mare Island Naval Shipyard. The Supply Center is proposing an individual effort for its small purchasing department. McClellan and Mare Island are proposing gainsharing programs that would, for the first time, involve DOD installations in large group/organizational gainsharing.

McClellan Air Force Base's Directorate of Distribution is designing a large group, participative gainsharing program as part of a proposed demonstration project pursuant to Title VI of the Civil Service Reform Act of 1978. (The act authorizes experiments to test and validate new management systems.)

The Directorate is proposing to pay bonuses on the savings resulting from the auditable differences between allocated funds and actual costs. The Directorate's existing quality circle program would be incorporated into the gainsharing program to reinforce employee identification with organizational goals and to take advantage of employee suggestions for doing the work more effectively and efficiently.

Mare Island Naval Shipyard is proposing an organizational gainsharing program that would include its 10,000 civilian employees. The "Share-Of-The-Mare" program would calculate bonuses based on fixed estimates to overhaul ships versus actual costs. No bonuses would be earned on ships not completed on time, even if they were completed under the fixed prices. The savings from all ships overhauled during the year would be totaled and shared between the shipyard and all civilian employees having at least 6 months of service at the shipyard at the time of the bonus payment, with each employee receiving equal bonuses.

In order to help tie workers' performance to yearly gainsharing bonuses, the shipyard would incorporate various communication and feedback mechanisms to let workers know, on a monthly basis, how they were performing relative to the fixed price of each ship. For example, the shipyard plans to give the workers monthly "shares," similar to stock certificates, that would report the shipyard's performance level as of that point in the year.

REPORTED RESULTS OF DOD'S GAINSHARING EFFORTS

Table III.1 (p. 15) details operating and program information, as reported by the activities, for the 21 DOD gainsharing programs on which data was gathered. Excluding the program recently implemented and not yet reporting results and the three proposed programs, all the gainsharing efforts report cost savings (from $7,000 to over $1 million). (App. VI describes three of DOD's efforts, a completed test and two ongoing programs that continue to provide benefits to the sponsoring organizations.)

Several locations also tracked and reported some of the indirect benefits resulting from their gainsharing efforts. The Navy Public Works Center in San Diego reported the elimination of work backlogs, an 80-percent reduction in time lost due to on-the-job injuries, and substantial reductions in overtime (see app. VI). The Army Missile Command at Redstone Arsenal reported personnel turnover and overtime decreased to one-fifth and about two-fifths their pre-gainsharing levels, respectively, and work backlogs were eliminated. The Sacramento Army Depot's test found significant decreases in overtime and sick leave, along with a decrease in the maintenance reject/rework rate from 5.9 to 1.1 percent (see app. VI).

Officials at many of the sites we visited stated that by focusing attention on performance, gainsharing efforts provided information to help highlight and resolve organizational problems, inadequate management controls, and impediments to productivity improvements. For example, the gainsharing test in the machine shop at the Pearl Harbor Naval Shipyard disclosed that the shipyard's labor reporting system did not provide detailed-enough data for the test. The new system developed for the gainsharing effort proved so successful that it may be implemented at all Navy shipyards.

Other examples include:

--identification and correction of inventory control problems at the Tobyhanna Army Depot,

--correction of time card mischarges at the Anniston Army Depot, and

--identification of adverse trends in operations at the Army Armament Research and Development Center.

LEGISLATIVE, REGULATORY, AND POLICY IMPEDIMENTS TO GAINSHARING

Office of Secretary of Defense officials believe that the implementation of gainsharing programs is being impeded due to

--the lack of specific legislation authorizing such programs,

--existing instructions that limit flexibility in designing and operating gainsharing programs, and

--the absence of published guidance from OPM.

The Government Employees' Incentive Awards Act, 5 U.S.C. 4501 et seq., provides the legal basis for gainsharing programs. However, the act fails to specifically address gainsharing or the use of administrative time off in lieu of money, a gainsharing

bonus option that is used in the private sector.[8] DOD officials believe that the lack of specific legislation makes agency managers hesitant to take the initiative in developing gainsharing programs. They also feel that, for some employees, time off could be more of an incentive than bonus payments.

DOD headquarters' officials stated that OPM instructions limit flexibility in designing and operating gainsharing efforts. Specifically, they point to FPM 451, subchapter 7-5, which prohibits the use of merchandise in lieu of money as incentives. During our field visits, DOD program officials also cited this limitation as an impediment to gainsharing programs. They noted that in some instances merchandise, such as jackets, could be effective inducements in developing team spirit characteristic of successful gainsharing programs.

Currently, there is no governmentwide published guidance for federal agencies interested in establishing gainsharing programs. In this connection, our December 31, 1980, report on productivity based reward systems (gainsharing programs) cited the need for OPM to develop policy guidance for these programs.

DOD entities do have the benefit of DOD's internal instruction 5010.39 (Nov. 16, 1984), which provides policy, prescribes procedures, and assigns responsibilities for establishing and administering DOD work force motivation

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[8]In a December 7, 1982, letter to the Internal Revenue Service (B-208766), the Comptroller General held that administrative leave may not be granted under the incentive awards program. The basis of the 1982 opinion is that neither the Incentive Awards Act nor its implementing regulations or instructions suggest that administrative leave was contemplated to be used as a noncash award under the program, and no current authority exists. However, the opinion leaves open the possibility that administrative leave could be permitted if OPM so revised its regulations or instructions, given the "wide latitude" the act gives that agency for implementing the incentives program.

Other interpretations of this act by the Comptroller General include two decisions approving proposed programs to provide monetary incentive awards based on achieving fixed production standards (B-128082, August 14, 1956, and B-108082, July 15, 1969).

efforts. Also, in March 1985, DOD issued its "Guide for the Design and Implementation of Productivity Gainsharing Programs" (5010.39-G), which provides information on gainsharing prototypes and general instructions for designing and implementing gainsharing programs.

We agree with DOD officials that specific legislation authorizing gainsharing programs could eliminate the concerns they expressed. Another alternative would be for OPM to expand the discussion in its regulations or in the FPM governing employee incentive programs to specifically address gainsharing. The proposed guidance could detail parameters for designing, implementing, and operating gainsharing programs, as well as OPM's views on the use of administrative timeoff in lieu of money. With regard to the use of merchandise as a noncash award, we agree with DOD that OPM would have to change its instructions (FPM 451, subchapter 7-5) in order to remove the existing prohibition.

ELEMENTS THAT FACILITATE SUCCESS

Based on information gathered during our field visits through questionnaires and interviews, evaluations of data provided by DOD, and analyses of private sector studies, we have identified elements important to the success of gainsharing efforts.

DOD's gainsharing efforts to date demonstrate that individual/small group programs can generate costs savings and other related improvements. What still needs to be determined is whether large group/organizational, participative gainsharing programs, which have proven successful in private industry, have the same applicability to the federal environment.

INDIVIDUAL/SMALL GROUP

We found, with respect to DOD's individual/small group gainsharing efforts, that the following three elements specific to these types of programs helped facilitate success:

--occupations that involved repetitive, easily definable tasks, such as data transcribers;

--the availability of engineered or other reliable standards against which to measure performance; and

--computerized systems to record and track labor charges and other costs.

GAINSHARING IN GENERAL

Information available from private sector experience and studies is fairly clear concerning the elements that facilitate successful gainsharing programs, whether individual/small group or large group/organizational. Our work in DOD supports the validity of these elements for success in the federal sector.

The most frequently cited element necessary for gainsharing to succeed is continuous and visible management support at all levels for the program. Since gainsharing programs are dependent on high levels of management involvement and support, commitment by management is essential if programs are to be successful.

Another critical element necessary for success is employee participation in designing and implementing the program. Private sector studies point to the continuation of this employee participation in the productivity improvement process, usually

achieved by forming teams or groups to elicit and act upon suggestions from employees on how to do the work more effectively and efficiently. Management must encourage employees to participate and actively involve themselves in this process. This means, in certain cases, that managers must change their management style from autocratic to open and participatory. Based on the numbers of private sector firms incorporating employee participation systems as integral parts of their gainsharing programs, we believe that without this process major sources of productivity improvement ideas are lost.

The third critical element is definable and practical measures of performance. If the measurement formula is not understandable by employees, it will be distrusted, causing difficulties for the program's operation. The performance measurement should be as simple as possible and reflect workers' actual performance, not factors that are out of their control. From the organization's perspective, the measures must be accurate reflections of the performance of the work force.

A fourth critical element is sufficient workloads to absorb increases in productivity. Workloads were problems with some of the small group Army gainsharing tests. Initially, when the tests were first implemented, several of the depots, which are dependent upon other Army activities for their workloads, were faced with work backlogs. Once the tests got underway the backlogs were eliminated by increases in productivity. Subsequently, the workloads were insufficient to sustain increased levels of productivity.

Other elements that facilitate successful gainsharing programs, cited in private sector studies and based on information gathered by our questionnaires and interviews of DOD program officials, include:

--information sharing between participating parties,

--union participation where appropriate,

--availability of parts and materials needed to accomplish the work, and

--continuous feedback to workers on their performance.

Our 1981 report cited a number of reasons why gainsharing programs are not successful, including (1) lack of management commitment, (2) failure to develop good communication systems, and (3) use of a questionable bonus formula. This list parallels

the elements needed for success that we identified in our analysis of DOD's gainsharing efforts.

LARGE GROUP/ORGANIZATIONAL

The trends in private industry to large group/organizational, participative gainsharing programs are being fueled by the benefits that such large scale efforts offer, including:

--potential involvement of all employees;

--avoidance of maintaining engineered standards and the recordkeeping associated with individual/small group efforts;

--having all employees working together toward common goals, rather than competing as individuals or small groups;

--eliminating dissent between direct and indirect employees since all have the opportunity to participate; and

--having mechanisms for eliciting and acting upon employee suggestions for doing the work more effectively and efficiently.

In light of the trends in private industry, it appears that the next step is to determine the applicability of large group/organizational, participative gainsharing programs to the federal environment. Since DOD has, by far, the most federal experience with gainsharing, and has two large group/organizational programs in the planning stages, it would seem the logical choice to take the initiative in evaluating the potential of such programs.

If large group/organizational, participative gainsharing programs are implemented in DOD, we believe that the elements cited in this report and summarized in table IV.1 should be present to help facilitate the success of the programs.

TABLE IV.1:
Elements Necessary For Successful Gainsharing Programs

1. Management support at all levels.
2. Employee participation systems to identify and solve work-related problems.
3. Definable and practical measures of performance.
4. Sufficient workloads to absorb increases in productivity.
5. Information sharing between participating parties.
6. Union participation where appropriate.
7. Availability of parts and materials to accomplish the work.
8. Continuous feedback to workers on their performance.

PRIVATE SECTOR ORGANIZATIONAL GAINSHARING EXAMPLES

Example A

Faced with the need to improve productivity to offset rising costs, a 2,400-employee hospital established an organizationwide gainsharing program in 1984. Using an existing work measurement system that covers 75 percent of its services, plus other productivity measurements, the hospital computes the cost of producing its "products"--discharged patients--versus the price of its services. In addition, each hospital department has its own productivity standard, based on historical data, against which performance is measured.

Bonuses are paid to employees of departments whose productivity exceeds their historical standards. However, no bonuses are awarded if the hospital as a whole does not increase productivity. Bonuses, which are paid weekly, are based on 3-month moving averages to compensate for fluctuations in costs versus admissions.

During the first year of the gainsharing program hospital productivity increased 8 percent, producing $2 million in savings. Hospital employees' bonuses averaged 4.3 percent of their base salaries during this time frame. Concurrent with its gainsharing program, the hospital uses quality circles to elicit proposals from employees on improved methods for doing the work.

Example B

In 1981, a custom hardwood and veneer manufacturing firm implemented an organizationwide, participative gainsharing program called a Scanlon Plan.[9] The gainsharing plan has three common elements: (1) a philosophy of cooperation between management and employees; (2) networks of shopfloor and/or office teams to elicit, process, and act upon suggestions from employees on improved ways of doing the work; and (3) financial bonus systems to reward employees for productivity and efficiency gains.

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[9]Named after its founder Joseph Scanlon, the plan is a philosophy that incorporates principles of management that (1) encourage people to identify with their work group, (2) encourage people to participate as much as they can, and (3) continually focus on equitably rewarding all members of the organization.

For the 5 years prior to 1981, the company's total costs of producing its products averaged 81.5 percent of their sales value. By the end of 1984 the company had reduced production costs to 69.6 percent of sales value, a 15-percent improvement in productivity. The 4-year savings of approximately $2 million were shared 45/55 percent between the company and employees, respectively. As a result, the company experienced consecutive years of record profits, while employee bonuses increased from an average of $315 in 1981 to almost $3,300 in 1984.

EXAMPLES OF DOD GAINSHARING EFFORTS

Sacramento Army Depot

Originally implemented in July 1982 for about 54 maintenance employees responsible for repairing ground radios and flight navigational instruments, the small group test effort at the Sacramento Army Depot was expanded in October 1982 to include 45 employees involved with small purchases. The tests for both groups, for which 98 percent of the work measured had engineered standards, were completed in March 1984. Combined, the tests resulted in reported savings of about $371,500, shared equally between the government and employees. Productivity, based on the number of units produced, increased 17 percent for small purchase employees and 16 percent for maintenance employees. Other benefits reported included reductions in overtime (56 percent for maintenance, 35 percent for small purchase) and in sick leave (12 percent for maintenance, 21 percent for small purchase).

Sacramento Air Logistics Center

The data transcription unit at the Sacramento Air Logistics Center initiated a gainsharing program in September 1982. Employing an average of 38 transcribers, the unit has improved its performance by about 28 percent since the program's inception. The resulting savings of about $252,000 (as of December 1985) were shared 80/20 percent between the government and employees, respectively. The unit has also experienced significant reductions in personnel turnover, overtime, backlogs, and the amount of work it has to contract out. Recently, as part of an Office of Management and Budget Circular A-76 review, the unit successfully competed against having its entire operation contracted out.

Navy Public Works Center, San Diego

Centered primarily in the automobile section, the machine repair activity at the Navy Public Works Center, San Diego, initiated an individual based gainsharing program in 1982. Since its inception, the program has helped the approximately 80 employees (1) increase productivity by 23 percent, (2) generate about $347,000 in savings (shared between organization and employees 70 percent and 30 percent, respectively), (3) decrease equipment downtime by 50 percent, and (4) decrease time off due to injury by 80 percent. The official responsible for designing, implementing, and operating the gainsharing program notes that the program has benefited from private sector engineered standards to measure performance against and from computer systems to track and record labor charges.

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